

DD/ST# 1213-65/1

4 February 1965

MEMORANDUM FOR: Special Assistant, Deputy Director for Support

SUBJECT : Data Processing System for Supply Functions

REFERENCES : (1) Memo from AD/CS to Director of Logistics; same subject; dated 13 July 1964.

(2) Memo from Acting Director of Logistics to DD/S; same subject; dated 21 July 1964.

Attached is a report which reflects our understanding of what the Office of Logistics would like to accomplish by reprogramming the existing automatic data processing system. There are two alternative routes to consider, each of which would incorporate the requested improvements. If it is agreed that the improvements outlined meet the requirements of the Office of Logistics, the remaining consideration is a question of time required to implement the changes. The two alternatives are:

- a. Reprogram the system discussed in the attached paper for third generation equipment to be installed in OCS during 1966. (Basically the system would employ batch processing techniques.)
- b. Redesign and reprogram a new system to take advantage of the complete capabilities of third generation equipment. (The redesign would consider the appropriateness of applying random/immediate processing and remote inquiry to this application. These techniques probably are more in line with overall plans for an Agency Management Information System.)

GROUP 1
Automatic
downgrading and
declassification

~~SECRET~~

-2-

It is our estimate that Alternative a, in view of the extensive training which would be required for OCS personnel in new computer programming languages, could be implemented with 45 to 50 man-months of programming and could be completed by the end of second quarter 1966. Alternative b, which would require a significant redesign effort, including systems integration as well as significant retraining of OCS personnel in the new programming languages, could be implemented with approximately 60 man-months of programming effort and could be accomplished by the end of third quarter 1966.

The extremes of each of the alternatives indicate that the earliest operational date would be May/June 1966 (Alternative a) and the latest would be September 1966 (Alternative b).

Either Alternative a or b would allow OCS to reprogram this job in a language compatible with third generation computing equipment which will be installed during 1966. It is the recommendation of this Office that Alternative b be adopted. However, if a 3- or 4-month delay (June to September 1966) is not compatible with other considerations and pressures within the Office of Logistics, Alternative a could be adopted, thereby potentially delaying the incorporation of this system into the proposed new Management Information System. (The attached paper outlines a system for Alternative a, only. Some further study and redesign would be required before a similar report including firmer schedules could be produced for Alternative b.)

In keeping with your request, I am forwarding the report to you for coordination with the Office of Logistics. OCS is prepared to discuss the proposal and to allocate the resources to conduct the extended effort necessary, consistent with above recommendations.

JOSEPH BECKER

Assistant Director
Computer Services

Attachment

~~SECRET~~

3 February 1965

DATA PROCESSING SYSTEM FOR SUPPLY FUNCTIONS

1. OCS has completed the systems design for a Supply Division data processing system. We have attempted to design an efficient computer system that will implement all of the revisions requested by the Office of Logistics in the referenced memoranda. In addition, we believe the system will provide the following:

- a. Tighter transaction and file control;
- b. Better monetary control and more current financial records;
- c. Ready availability of current balances;
- d. Reduction in utilized computer time.

2. The proposed system uses a daily file updating cycle, and should eliminate the need for any manual posting of balances in the Supply Division, OL. To make daily updating possible, OCS proposes to reduce the size of the stock master file, as follows:

- a. Eliminate all stock numbers with no balances, resulting in a reduction of 20 to 25 thousand stock numbers.
- b. Create a separate file of nomenclature information, and nomenclature trailer. This would reduce the length of each stock master record by 172 characters.
- c. Eliminate the following fields from the master file (for a reduction of 64 characters per record):
 - (1) Stock issue quantity balance total; (2) Acquisition receipt quantity; (3) Acquisition

-2-

receipt value; (4) Acquisition receipt count; (5) Direct acquisition receipt quantity; (6) Direct acquisition receipt value; (7) Direct acquisition receipt count.

d. Eliminate the following fields from the Stock On Hand record (a saving of 184 to 1288 characters per master record):

(1) Stock issue quantity; (2) Stock issue voucher count; (3) Direct stock issue quantity; (4) Direct stock issue count.

These reductions would produce an average master record of 314 characters and a maximum record of 4420 characters and would result in a master file that would be practical for daily processing and, which would be less than half the size of the present file. The nomenclature file would be processed separately and used where necessary for reporting. Unit price would appear in both records and would be reconciled, although the unit price in the stock master file would be used for all financial transactions.

3. There will be a considerable change in reporting cycles and techniques, although much of the content will remain relatively unchanged. Attachment B lists all reports which would be produced and their periodicity. The following would be the significant changes:

a. Periodicity of the On Hand, In Use, On Loan To and On Loan From status reports would be changed from monthly to quarterly.

b. Preparation of a new report which would show On Hand balance forward, cumulative to date, daily. These lists would not have nomenclature in them, would print one line per item, and should eliminate the need for manual posting of stock balances.

-3-

c. Preparation of a daily Replenishment Action report, which would list stock items below level. This would also be without nomenclature.

d. Produce selected stock status reports or inquiries on demand, with a 24-hour turn-around time.

e. Document control reports, error reports, and combined activity registers would be done daily.

4. Of the improvements requested by OL in the referenced memorandum, four are worthy of special mention, because the system implications must be understood.

a. Automatic stock number changes present a special problem, because history files, issue and demand files, and financial balancing will be affected. Stock number is the basic file sequence, and number changes which affect this sequence will be processed in two stages with only the single original input being required from OL.

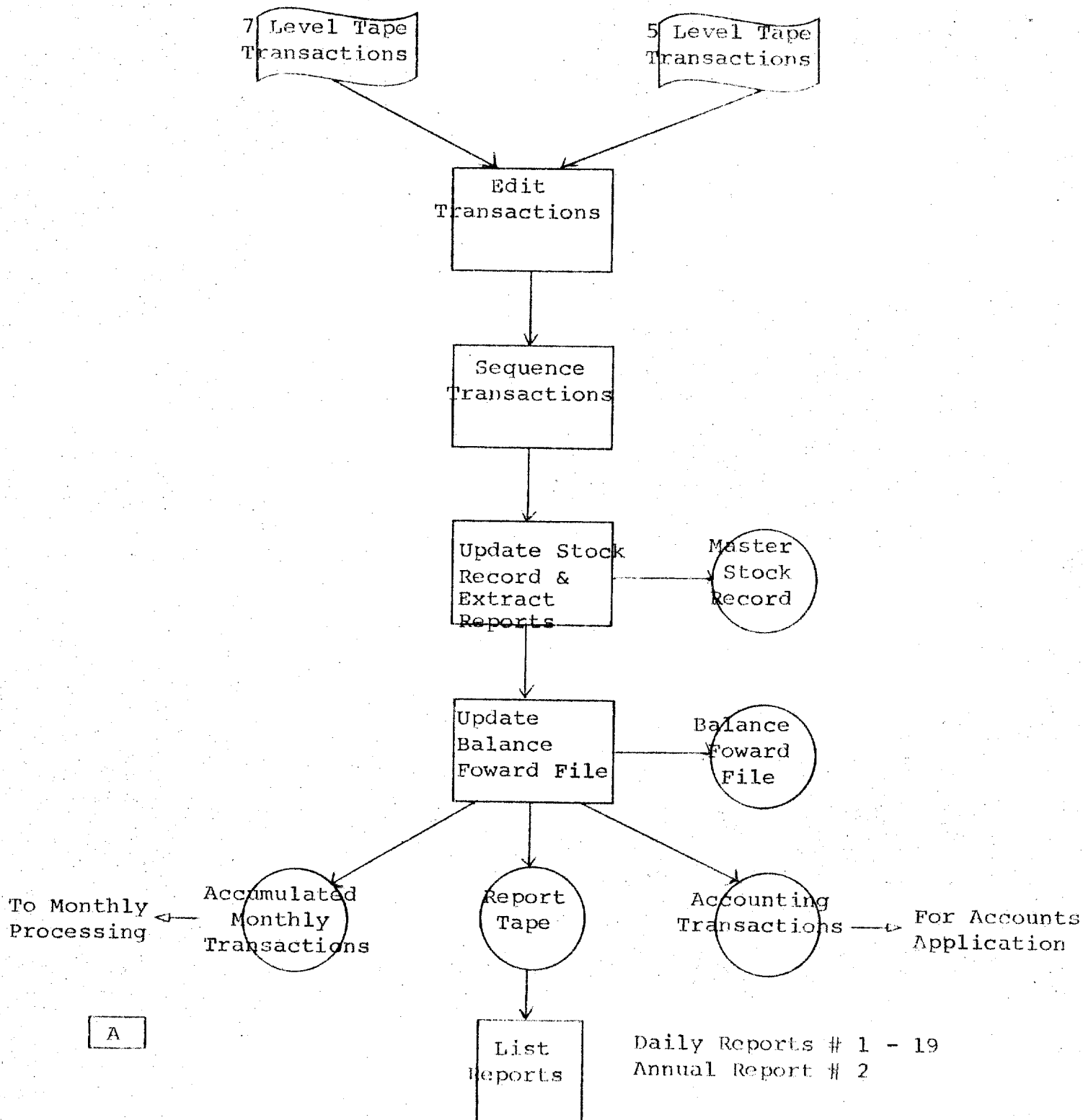
b. Any transaction code structure desired by OL can be accommodated in the programming effort.

c. Economic order quantities (EOQ) and cash flow inventory reporting may easily be accommodated, but no reports have been shown in Attachment B, since we do not as yet have the formulae or report formats in final form.

5. We estimate about forty-five (45) man-months of programming time would be necessary, including file conversion, and dual processing. From date of system acceptance, we estimate that at least ten (10) calendar months will be required to complete the programming.

ATTACHMENT A

Daily Cycle





Attachment B

DAILY REPORTS

1. Receipts & Issues
2. Ledger Postings
3. Control Totals
4. Error Read Outs
5. On Hand Acquisition Difference 661.0
6. On Hand Acquisition Difference 663.0
7. Property in Use Acquisition Difference 661.0
8. Property In Use Acquisition Difference 663.0
9. Property on Loan To Acquisition Difference 663.0
10. RIA On Hand Revaluation
11. RIA Property In Use Revaluation
12. RIA Property in Loan to Revaluation
13. Shortage Report for Replenishment Action or EDQ
14. Stock Number Change, Consolidation, and/or Deletion
15. Document Control Exceptions
16. Stock On Hand Balance Forward
17. RIA Property On Hand Inventory Adjustment
18. RIA Property In Use Inventory Adjustment

REQUEST REPORTS

1. Pre-Inventory Status On Hand and In Use
2. Inventory Count Slips On Hand and In Use
3. Inventory Count Slip Register On Hand and In Use
4. Inventory Punched Cards On Hand and In Use
5. Selected Property On Hand and In Use Accounts

MONTHLY REPORTS

1. Activity Register
2. Demand & Issue Activity Register
3. Allocation SOD Status
4. Monetary Value of Property On Hand
5. Monetary Value of Property In Use
6. Monetary Value of Property On Loan To
7. Monetary Value of Property On Loan From
8. Condition 3 Status
9. Allocation 07 Status
10. Allocation 08 Status
11. Allocation 17 Status
12. Allocation 31 Status
13. Cognizant Office T/Allocation 61 Status
14. Allocation 91 Status

15. Allocation 99 Status
16. Allocation 902 Status
17. Allocation 904 Status
18. Allocation 914 Status
19. SAC Letter Duplimats
20. FINN Nomenclature Catalog Supplements
21. Stock Management Report

QUARTERLY REPORTS

1. Status of Property On Hand
2. Status of Property In Use
3. Status of Property On Load To
4. Status of Property On Loan From
5. Allocation ORD Status
6. Condition 5 Status
7. Commo Allocations Status

- STATSPEC 8. [REDACTED] Allocation Status
9. Obsolete Items

SEMI-ANNUAL REPORTS

1. FINN Nomenclature Catalog
2. Consolidated Activity Register
3. "Cash Flow" Inventory Report

ANNUAL REPORTS

1. Dollar Value of 170 Accounts
2. Price Duplimats
3. Average Price Computation